

Delta subunit of bacterial RNA pol and its role in regulation of gene expression in *B. subtilis*.

In this work I focus on regulation of eubacterial gene expression. First, I describe recent knowledge about a key stage of gene expression - transcription, focusing on regulation of transcription initiation via small effector molecules (guanosine tetraphosphate, initiating nucleoside triphosphate) that are important for the regulation of ribosomal RNA. Second, in the experimental part of my work, I focus on the role of the  $\sigma$  protein, a subunit of RNA polymerase in gram positive bacteria, in transcription initiation and its effects on regulation of RNA polymerase by the concentration of initiating nucleoside triphosphates.